

REMARKS

Claims 1-3, 5-17, 19-21, and 23-28 are pending. Claims 1-3, 5, 8, 9, 11, 13, 14, 16, 17, 19-21, and 23-27 have been amended and claims 4, 18, and 22 have been canceled.

In the Office Action, claims 1-28 were rejected under 35 USC § 102(b) for being anticipated by the Salin patent. This rejection is traversed for the following reasons.

Claim 1 recites that mobile equipment user information is obtained through a service grade inquiry at a security furnishing system. The information is obtained by (1) “receiving, in a furnishing security system, a mobile application part (MAP) protocol message including International Mobile Station Identity (IMSI) information and Mobile Subscriber Integrated Service Digital Network (MSISDN) information.” Once it is determined that the user equipment information is illegal, the step of (2) “storing the IMSI and MSISDN information received in the MAP protocol message corresponding to the mobile equipment user information.” The illegal information is then reported to an operator. The Salin patent does not disclose features (1) and (2) added by amendment to claim 1.

The Salin patent discloses several approaches to reporting illegal use of a mobile terminal.

The first approach involves receiving IMEI information in an EIR in a request for service. The EIR searches a database based on the IMEI information to determine whether the information is illegal. If the information is illegal, the IMSI of the terminal is reported to an operator at an OMC. The operator then determines the MSISDN number corresponding to the

terminal, and uses this number as a basis for contacting the subscriber of the terminal. (See column 1, line 62 - column 2, line 40).

In this first approach, the Salin patent discloses reporting the IMSI of a mobile terminal being illegally used to the operator of an OMC. But, Salin does not teach or suggest how the IMSI of the illegal terminal is determined. Also, Salin discloses that an operator manually finds and then reports the MSISDN number of the illegal terminal to the subscriber.

Claim 1 is therefore distinguishable from Salin in at least two ways. First, claim 1 recites receiving, in security furnishing system, a mobile application part (MAP) protocol message including International Mobile Station Identity (IMSI) information and Mobile Subscriber Integrated Service Digital Network (MSISDN) information. The Salin patent does not disclose these features, i.e., Salin discloses requesting the identity of a subscriber using a MAP message (column 1, line 52-55). However, the first approach disclosed in Salin does not transmit a MAP protocol message to its EIR, which message includes IMSI and MSISDN information. In fact, Salin teaches away from these features when it discloses that the operator, and not any information included in a received MAP protocol message, determines the MSISDN of the illegal mobile terminal information.

Claim 1 further recites “storing the IMSI and MSISDN information received in the MAP protocol message corresponding to the mobile equipment user information.” The first approach disclosed in Salin does not perform this storing function based on IMSI and MSISDN information stored in a received MAP protocol message.

The second approach transmits IMEI information embedded in a MAP message to an EIR. (See columns 4 and 5). However, this second approach also does not receive, in an equipment identity register (EIR), a mobile application part (MAP) protocol message including International Mobile Station Identity (IMSI) information and Mobile Subscriber Integrated Service Digital Network (MSISDN) information, as recited in claim 1. And, the second approach also does not store the IMSI and MSISDN information received in the MAP protocol message corresponding to the mobile equipment user information.

In fact, the Salin patent teaches away from these features by expressly disclosing that the illegality of the mobile terminal is determined without knowing the MSISDN number of the terminal. See column 3, lines 39-40, which directly relates to the approach described at columns 4 and 5.

Because the Salin patent does not disclose all the features of claim 1, it is submitted that the Salin patent does not anticipate this claim or any of its dependent claims.

Dependent claim 5 separately recites storing in the database “the IMEI information, a type of mobile equipment, a physical status of mobile equipment, a service grade of mobile equipment, a first registration time of mobile equipment, an access IMSI, an access MSISDN, a node information, and access time information.”

These features are highly desirable because, for example, they may be used as a basis for determining who used the illegal mobile equipment, when the illegal mobile equipment is used, and how the illegal mobile equipment is used. (See, for example, Paragraph [59] and Tables 3

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and 5 of the specification for support). As further noted in the specification, storing this information represents a significant improvement in the art, since many prior systems only store final access time information, which cannot be relied on to determine who, when, and how the illegal equipment was used. (See Paragraph [14] of the specification for a more detailed explanation of the drawbacks of conventional systems).

The Salin patent does not disclose the features recited in claim 3. At best, Salin only discloses storing IMEI information for a mobile terminal that is being illegally used. Accordingly, it is submitted that claim 5 is allowable, not only by virtue of its dependency from claim 1 but also based on the features separately recited therein.

Claim 8 has been rewritten into independent form to recite a method which includes (1) receiving, in a security furnishing system, a mobile application part (MAP) protocol message that includes International Mobile Station Identity (IMSI) information and Mobile Subscriber Integrated Service Digital Network (MSISDN) information, and (2) storing the IMSI and MSISDN information received in the MAP protocol message corresponding to the mobile equipment user information. As discussed above, the Salin patent does not disclose these features.

In addition, claim 8 recites “reporting the illegal mobile equipment user information to an operator through a Customer Service Billing System (CSBS) which manages a mobile communication network service subscriber.” Claim 8, therefore, covers at least the second embodiment of the invention. As discussed at Paragraph [61], a CSBS is structurally and

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functionally different from an OMS. The Salin patent does not teach or suggest the reporting step of claim 8 which is performed through a CSBS. Accordingly, it is submitted that claim 8 and its dependent claims are allowable.

Dependent claim 10 recites that the illegal mobile equipment access alarm message comprises “an IMEI, a type of mobile equipment, a physical status of mobile equipment, a service grade of mobile equipment, a first registration time of mobile equipment, an access IMSI, an access MSISDN, node information, and access time information.” These features are not disclosed by the Salin patent.

Dependent claim 11 recites that “when transmission of the illegal mobile equipment access alarm message fails, transmitting illegal mobile equipment access alarm file to the CSBS.” These features are not disclosed by the Salin patent.

Dependent claim 12 recites that “the illegal mobile equipment access alarm file includes an IMEI, a type of mobile equipment, a physical status of mobile equipment, a service grade of mobile equipment, a first registration time of mobile equipment, an access IMSI, an access MSISDN, node information, and access time information.” These features are not disclosed by the Salin patent.

Dependent claim 13 recites that when transmission of the illegal mobile equipment access alarm message fails, transmitting the illegal mobile equipment access alarm file to the CSBS comprises: “generating the illegal mobile equipment access alarm file using the mobile equipment user information; monitoring whether or not message transmission and reception

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with the CSBS is possible; and transmitting the illegal mobile equipment access alarm file when message transmission and reception is possible.” The Salin patent fails to disclose any of these features.

Dependent claim 14 recites transmitting the illegal mobile equipment access alarm file when message transmission and reception is possible comprises: transmitting an illegal mobile equipment access alarm report message including a high-rank system identification information to the CSBS; receiving an illegal mobile equipment access alarm report ready message, including file transmission information, from the CSBS; transmitting the illegal mobile equipment access alarm file to the CSBS using the file transmission information; and when transmission of the illegal mobile equipment access alarm file is completed, transmitting an illegal mobile equipment access alarm report completion message to the CSBS and receiving illegal mobile equipment access alarm report response message from the CSBS. These features are not disclosed by the Salin patent.

Claim 16 recites transmitting an IMEI request message including an IMEI and user information of mobile equipment from a switching system to a security furnishing system, the mobile equipment user information including IMEI information, International Mobile Station Identity (IMSI) information and Mobile Subscriber Integrated Service Digital Network (MSISDN) information. Claim 16 also recites that when the service grade is classified as an illegal IMEI, storing the IMSI and MSISDN included in the IMEI request message in the user information database. These features are not disclosed by the Salin patent.

Dependent claim 19 recites that the user information database stores the IMEI and the following related information: a type of mobile equipment, a physical status of mobile equipment, a service grade of mobile equipment, a first registration time of mobile equipment, an access IMSI, an access MSISDN, node information, and access time information. These features are not disclosed by the Salin patent.

Claim 20 recites transmitting an IMEI request message including an IMEI and user information of mobile equipment from a switching system to a security furnishing system, “the mobile equipment user information including IMEI information, International Mobile Station Identity (IMSI) information and Mobile Subscriber Integrated Service Digital Network (MSISDN) information.” In addition, claim 20 recites that when the service grade is classified as an illegal IMEI, “storing the IMSI and MSISDN included in the IMEI request message in the user information database and sending an access alarm message to an operator through a Customer Service Billing System (CSBS) managing mobile communication network service subscriber.” These features are not disclosed by the Salin patent.

Claims 23-28 recite additional features that are not disclosed by the Salin patent.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and timely allowance is respectfully requested.

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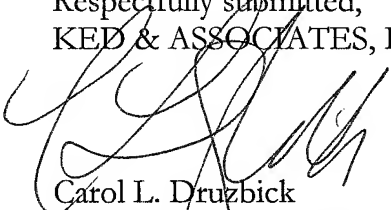
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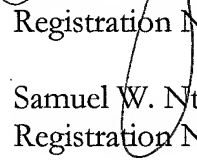
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To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

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